



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

Doubtful and perplexing examples of Protista and spermatozoa are presented, while such clear and striking examples as are afforded by the experiments of Dr. Loeb on the moth *Amphipyra* are not mentioned. The same objection holds with still greater force in regard to the chapter on geotaxis.

Another thing which we regret is that in a text-book of biology, which evidently bases all biological phenomena upon the chemistry and physics of the organism and its environment, such metaphysical terms as photophil, photophob, lovers of dark, etc., are used. The same applies to the terms so frequently used, "adaptation," "advantageous to the organism." If by adaptation is meant no more than if we were to say that the photographic plate is adapted to the action of the light, the term is misleading. If, however, by such terms more is understood, it brings physiology back to the realm of metaphysics, a result contrary to the general tendency of the book.

We are glad the author, even at the risk of becoming wearisome to the ordinary reader, goes quite extensively into the physics and chemistry of such subjects as light and solutions. The fuller description of methods will certainly be highly appreciated by the student. Indeed, seeing how much in biological investigation depends upon methods, we could almost wish the author had been still more elaborate in this respect.

In general, the subject matter is well presented. Relatively much space is given to the facts and little to conflicting theories. The style is clear and concise. The bibliography will be of great use to the investigating student. The spirit of the first part is such that we shall look with impatience for the other three parts on growth, cell-division, and differentiation. The author has certainly done a great service to the student of biology in the careful collecting of the numerous researches in the field of experimental morphology, and we doubt not that the book will prove of immense value as a text, and as a stimulus to further and more thorough investigation.—W. D. ZOETHOUT.

Vegetables under glass.

THE last issue of the "Gardencraft Series"² deals with the forcing of vegetables. It is precisely what its subtitle indicates: a manual of the cultivation of vegetables in glass houses. It gives explicit directions for the construction and management of forcing houses, enumerates the vegetables commonly grown or capable of being grown in such houses, and gives detailed instructions for the growing of each. These instructions are based upon results actually worked out by the author and others. While the author is convinced that the forcing of vegetables is "bound to open up great possibilities for the future," he is conservative in advising beginners to undertake

² BAILEY, L. H., *The forcing book; a manual of the cultivation of vegetables in glass houses*. 12mo., pp. xiv+266, figs. 88. New York: The Macmillan Company, 1897.

the work, and carefully points out the difficulties that must be surmounted. Unquestionably this is the most comprehensive and valuable book that has thus far been published on the subject, and no one who is engaged in the forcing of vegetables, or who contemplates engaging in it, can afford to be without it.

A considerable part of the subject matter of this book has already been published by the author or his assistants through the bulletins of Cornell University, and the author has quoted rather freely from other sources. But the parts are so well adjusted, and so well supplemented by the author's hitherto unpublished experiences and observations that the somewhat fragmentary structure of the book does not appear, and the freshness, clearness and grace that characterize all of Professor Bailey's writings abound throughout. If his sentences are sometimes less polished than we might expect from so learned a writer, the intensity of their expression and the fertility of the thoughts they convey always render them most pleasant and profitable reading.—E. S. GROFF.

Monographia Cactacearum.³

Botanists and gardeners everywhere will greet with pleasure Professor Schumann's *Monographia Cactacearum*, the first part of which has just appeared. An inspection of this justifies the assertion that expectation will not be disappointed; for the work promises to satisfy in a large measure the long felt needs not only of botanists, but also of cactus growers generally, amateur and professional. The author has studied the group during the greater part of eight years, visiting the principal botanic gardens of Europe, constantly examining growing plants in all stages, and bringing together in Berlin an unsurpassed collection of living and dried material. Certainly the Botanic Garden in Berlin, with its cactus prestige of nearly a century, furnishes rare opportunities for such a comprehensive study as Professor Schumann has undertaken, for in this, as in no other family of plants, the element of culture tradition enters as an exceedingly important factor. It happens in numerous species of all genera that existing individuals can with absolute certainty be referred back through years of culture to their originals, constituting a thread of identity which would otherwise long since have been quite obliterated. It has thus been possible in the present work to rescue many of the older species from oblivion, not, however, without that ever present element of uncertainty that arises from the instability of vegetative characters so prevalent in the family. Furthermore, as guiding spirit in the Berlin Gesellschaft der Kakteenfreunde, and as editor of the *Monatschrift für Kakteenkunde*, the author has long been in close communication with an army

³SCHUMANN, KARL.—Gesamtbeschreibung der Kakteen (monographia Cactacearum). Part I, large 8vo, with 100 text cuts. Neudamm: J. Neumann. M. 2.